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March 24, 2017

**Via UPS Overnight Delivery**

Douglas K. McDaniel  
Chief, Waste and Chemical Section  
Enforcement Division  
U.S. Environmental Protection Agency, Region IX  
San Francisco, CA 94105

**Re: Notice of Violation dated January 23, 2017**  
**Phillips 66 Company Carson (LARC) EPA Id. No. CAD980881676**  
**Phillips 66 Company Wilmington (LARW) EPA Id. No. CAD008237679**

Dear Mr. McDaniel:

This letter provides Phillips 66 Company's ("Phillips 66") response to the Notice of Violation ("NOV") issued by the U.S. Environmental Protection Agency ("EPA") in connection with its August 24-28, 2015 RCRA Compliance Evaluation Inspection at Phillips 66's Los Angeles Refinery Wilmington and Carson Plants. By e-mail dated February 1, 2017, EPA granted Phillips 66 an extension of time to respond to the NOV up to and including March 25, 2017 (postmark date). Our response letter provides information on each of the alleged violations identified in the NOV, including (i) a description of the corrective action taken, where we do not contest EPA's findings, or (ii) an explanation of the reasons we believe the refinery is not in violation of the referenced regulations, where we disagree with EPA's findings. For ease of reference, we utilized the same numbering system set forth by EPA in Section III of the Inspection Report, Summary of Findings, applicable to both the Wilmington and Carson Plants. By providing this information, Phillips 66 expressly reserves and does not waive its rights to contest the alleged violations in any further action taken by EPA (or any action taken by any other entity).

**WILMINGTON PLANT**

**Alleged Violation No. 1: EPA's Findings/Supporting Notes**

**[22 CCR § 66270.1(c); 40 CFR § 270.1(c)]**

- LARW is storing and treating listed hazardous wastes [in] Tank 0 without a permit.
- During the inspection facility personnel stated that the spent solvents and product samples (F001-F005) are stored in Tank 0 then trucked to the ORU. This statement is supported by their 11/12/2015 response in Appendix 5.
- LARW analyzes a number of materials in their laboratory. These materials include semi-processed crude from LARC as well as petroleum products (gasoline, jet fuel, diesel fuel, and liquid petroleum gas (LPG)). Spent solvents (F001-F005) and product samples from the laboratory are mixed together either during analysis or after disposal from the laboratory sinks. According to EPA's mixture rule, when non-listed hazardous waste is mixed with a listed hazardous waste the entire mixture becomes a listed hazardous waste (FR Vol. 46, No. 221, 56587 11/17/1981).



Phillips 66 Response:

Phillips 66 disagrees with EPA's finding of violation and does not believe the management of oil-bearing material in Tank 0 is subject to regulation under RCRA or the state Hazardous Waste Control Law, notwithstanding the possible presence of laboratory solvents in the tank. For the reasons explained, we do not believe the mixture rule has any application in these circumstances.

The Inspection Report does not accurately describe the processes utilized by the plant's Quality Control Laboratory or how solvents come to be present in the tank. The primary purpose of the Laboratory is to store retain samples and conduct chemical analyses of petroleum intermediates and finished petroleum products (gasoline, jet fuel, diesel fuel, and liquid petroleum gas) to determine their conformance with applicable refinery and product specifications. The laboratory tests hundreds of samples on a weekly basis and generates hundreds of gallons of oil-bearing material, all of which is routinely returned to the refinery's Oil Recovery Unit ("ORU") for recovery and reinsertion into the petroleum refining process. This practice of recycling oil-bearing material generated by quality control labs is widely followed by the petroleum refinery industry throughout the country and falls squarely within the exclusion for secondary hazardous oil-bearing materials, as discussed below.

Solvents are used in the Laboratory to prepare samples for analysis pursuant to testing protocols (e.g., to adjust viscosity) and to rinse oily residues from glassware after testing fuels and other petroleum-containing materials. Upon completion of pertinent analyses, or when sample retains are no longer needed, hydrocarbon samples containing solvents are temporarily stored in one- and five-gallon containers at sample stations, the contents of which are then poured into a special sink (under a fume hood) that is hard-piped to Tank 0, located immediately outside the Laboratory (lower east dock). In addition, small amounts of solvent are sometimes used to clean residual oil from the laboratory equipment and glassware before it is washed in the dishwasher; this oily residual is also collected in Tank 0 for recycling back to the process. Vacuum trucks periodically remove the contents from Tank 0 and transport it to Recovered Oil Tank 349 (a slop oil tank), from where it is placed back into the refinery process. Phillips 66 previously provided EPA with information about the quantity of oil-bearing material that is transferred via vacuum truck from Tank 0 to the ORU. The amount varies from month to month, but over the course of a year, thousands of gallons of secondary oil-bearing material are safely and beneficially recycled back to crude.

Federal and state law exempts secondary hazardous oil-bearing materials generated at petroleum refineries from regulation as hazardous wastes provided that the material undergoes oil recovery, the recovered oil is returned to the refining process, and none of the disqualifying conditions are met. See Health and Safety Code, § 25144(c); 40 CFR § 261.4(a)(12)(i). There is nothing in either of these provisions of law that precludes reliance on the exclusion because the oily residuals contain solvents or any other constituents that would render the material hazardous, whether by characteristic or listing. Contrary to EPA's understanding, Phillips 66 does not discharge spent solvents to Tank 0 unless they contain recoverable oil as a result of their use in the laboratory. Thus, the mixture rule is inapplicable in the circumstances and does not cause the contents of the tank to carry any of the F waste listings (F001-F005). Accordingly, Phillips 66 disputes that it is storing and treating listed hazardous waste in Tank 0.<sup>1</sup>

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<sup>1</sup> We also note that the presence of laboratory solvents in refinery wastewater falls within the scope of several of the "mixture rule amendments" in Section 66261.3(a)(2)(F) of the Title 22 regulations, to the extent that solvent constituents end up in the refinery wastewater. See also, 40 CFR §66261.3(a)(2)(iv). Under these provisions, the presence of small amounts of solvents in laboratory wastewater the discharge of which is regulated under



It should also be noted that transfer of oil-bearing secondary material from Tank 0 to the ORU is not subject to hazardous waste transportation or manifesting requirements. In the first instance, the oil-bearing material being transported is not subject to regulation. In addition, the transfer occurs solely within the Wilmington Plant facility boundary. As such, copies of the Vacuum Truck Loading/Offloading Forms are not retained in the ordinary course of business. Some copies were still on hand, however, and were provided to EPA in our supplemental response to EPA dated August 26, 2016. As we also explained in that letter, Phillips 66 does record movements of the oil-bearing secondary material moved from Tank 0 on a spreadsheet, a copy of which was also provided to EPA under that same transmittal letter.

### **Alleged Violation No. 2: EPA's Findings/Supporting Notes**

**[22 CCR §§ 66265.1050 - 66265.1064; 40 CFR §§ 265.1050 - 265.1064]**

- LARW has failed to manage equipment associated with Tank 0, used to accumulate spent solvent waste, in accordance with 40 CFR § 264 Subpart BB requirements. Subpart BB requirements include:
- Each open-ended valve shall be equipped with a cap, blind flange, plug, or a second valve. [§265.1056(a)(1)] **None present at the time of inspection.**
- Each valve in light liquid service shall be monitored monthly to detect leaks. [§ 265.1057(a)] **No LDAR program identified during inspection.**
- In the facility operating record (1) For each piece of equipment to which Subpart BB of part 265 applies: (i) equipment identification number and hazardous waste management identification, (ii) approximate locations within the facility (on a plot pan), (iii) type of equipment, (iv) percent-by-weight total organics in the hazardous waste stream at the equipment, (v) hazardous waste state at the equipment, (vi) method of compliance with the standard. [ 265.1064(2)(b)(1)(i-vi)]
- **No documentation in the facility operating record identifying the tank or ancillary equipment.**

#### **Phillips 66 Response:**

As stated in our response to Alleged Violation No. 1, above, Phillips 66 does not store or treat hazardous waste in Tank 0. The contents of the tank, including any solvent constituents in the oily residues that are collected in the tank, are oil-bearing materials that are excluded from regulation as hazardous waste and do not fall within the scope of any federal hazardous waste listing by virtue of the mixture rule. Accordingly, the requirements of Subpart BB establishing air emissions standards for equipment leaks (see 22 CCR § 66265.1050, *et seq.*) are not applicable to Tank 0.

### **Alleged Violation No. 3: EPA's Findings/Supporting Notes**

**[22 CCR §§ 66265.1085(a)(1), 66265.1085(c)(2), 66265.1085(c)(4); 40 CFR §§ 265.1084(a)(1), 265.1084(c)(2), 265.1084(c)(4)]**

- LARW has failed to determine if Tank 0, used to accumulate hazardous wastes solvents, is subject to 40 CFR § 264 Subpart CC requirements. Subpart CC requirements include:

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either Section 402 or 307(b) of the Clean Water Act does not cause the wastewater to become classified as a listed hazardous waste.

- For a tank that manages hazardous waste that meets all of the conditions specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section the owner or operator shall control air pollutant emissions from the tank in accordance with the tank level 1 controls specified in paragraphs (c) of this section or the tank level 2 controls specified in paragraph (d) of this section.
- The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by paragraph (a) of this section. The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under 40 CFR 265.15 [§ 265.1089(b)]
- Record keeping requirements specified in 40 CFR § 265.1090
- **Facility had no documentation showing compliance with the regulations at the time of the inspection.**

Phillips 66 Response:

Please see our responses to Alleged Violations No. 1 and No. 2. Phillips 66 does not store or treat hazardous waste in Tank 0. Therefore, the requirements of Subpart CC are inapplicable to Tank 0 or ancillary equipment.

**Alleged Violation No. 4: EPA's Findings/Supporting Notes**

[22 CCR § 66265.190; 40 CFR § 265.190]

- LARW failed to manage the laboratory waste accumulation tank (Tank 0) in accordance with RCRA Subpart J. Subpart J requirements include:
- Tank assessment from a professional engineer for integrity. [§ 265.191(a)]
- If facility does not have a tank assessment then they must meet secondary containment requirements in 40 CFR § 265.193.
- **No tank assessment or secondary containment at the time of the inspection.**

Phillips 66 Response:

Please see our responses to Alleged Violations No. 1 and No. 2. Phillips 66 does not store or treat hazardous waste in Tank 0. Therefore, the requirements of Subpart J are not applicable to Tank 0 or its ancillary equipment.

**Alleged Violation No. 5: EPA's Findings/Supporting Notes**

[DTSC Hazardous Waste Post-Closure Permit, dated July 24, 2008]

- EPA inspectors observed water and debris on the surface of the closed ORU basin.
- EPA inspectors observed tears in the lining of the closed ORU basin.
- The Facility did not notify DTSC of missed inspections for January or May 2015 for the closed ORU basin.
- **Records of the inspections are maintained electronically at the facility. Inspectors observed the missed inspections on the facility's database but did not request a printout.**



Phillips 66 Response:

The ORU basin is referred to as Stormwater Holding Basin No. 2 ("SHB2") in the Post-Closure Permit. The permit requires Phillips 66 to conduct inspections, visual monitoring and maintenance of the basin as described in the Post-Closure Application. The Post-Closure Application specifies three types of inspections: (1) daily remote visual inspections that do not require entry into the basin; (2) close visual inspections that require entry into the basin and that are conducted biannually, typically prior to and at the end of the rainy season; and (3) a mechanical inspection every 10 years.

The small amounts of water and debris that were observed on the surface of the ORU basin during the August 2015 inspection were removed during the scheduled mechanical inspection of the unit in October 2015. The tears in the liner that were observed during EPA's inspection were also repaired during the October 2015 mechanical inspection. While Phillips 66 acknowledges that it missed the first required biannual inspection in 2015, the mechanical inspection that occurred in October of that year fulfilled the second biannual inspection requirement. All daily inspections were conducted in 2015. Similarly, all daily and both biannual inspections were conducted in 2016.

Phillips 66 appreciates the need to conduct all inspections required under its Post-Closure Permit. However, we are not aware of any permit or other regulatory obligation that requires notification to the Department of Toxic Substances Control if an inspection of the ORU basin is missed. Phillips 66 has reconfirmed with refinery personnel responsible for the unit the importance of conducting all inspections on time and keeping the liner dry and free of debris to the extent reasonably practicable.

**Alleged Violation No. 6: EPA's Findings/Supporting Notes**

[22 CCR § 66265.31; 40 CFR § 265.31]

- EPA inspectors observed cracks and gouges on the pavement for the heat exchanger bundle cleaning pads.
- EPA inspectors observed holes in the concrete berm which prevents containment of the waste that is placed on the pad.
- Debris was observed around the heat exchange bundle cleaning pad and outside of the secondary containment for the area.
- Liquid and debris were found inside the sump for the heat exchanger bundle cleaning pad. The sump is not connected to any sewer system and material must be pumped out by the facility.
- **Heat exchange bundle cleaning pads contain K050 waste when in operation.**

Phillips 66 Response:

Before responding to EPA's specific allegations, we believe it would be useful to describe the operation of the heat exchanger bundle cleaning pad in more detail. As is typical of petroleum refineries across the country, so-called "heat exchanger bundle cleaning pads" are used for cleaning and maintenance of a wide variety of oily process equipment, tools, vessels and other service items used at the refinery. These pads operate, essentially, as points of entry to the plant's oil recovery system, and are designed to capture oily wash water so that it may be sent for oil recovery. The oily wash water is contained in the sump, which is an



integral part of the pad and that is hard-piped to the ORU (EPA's statement that the sump is not connected to the "sewer system" is inaccurate). Once the oil/water level reaches the height of the sump outlet pipe, the water and the floating layer of oil on top of the water gravity flow to the ORU. Solids that are washed into the sump during the cleaning process settle to the bottom of the sump and are periodically removed and managed as listed hazardous waste (all refinery sludges are consolidated under a combined profile with Clean Harbors (F037, K050, K051)). All hazardous waste is transported offsite for proper disposal at an authorized facility. It should also be noted that both federal and state regulations allow heat exchanger bundle cleaning sludge and other listed refinery wastes to be discharged to a refinery process sewer and managed via the plant's wastewater treatment/oil recovery system, without triggering the requirements of the mixture rule or other hazardous waste management requirements. See 22 CCR § 66261.3(a)(2)(F)(3.); 40 CFR §261.3(a)(2)(iv)(C).

Use of cleaning/maintenance pads is essential to the safe and environmentally prudent operation of the refinery, and such pads are critical components of refinery infrastructure, both during routine operations and during turnarounds. Phillips 66 acknowledges the need to conduct its operations on maintenance pads in a manner that does not result in the discharge of waste or other materials outside the pad, whether as the result of spillage, track-out, runoff or deficient housekeeping. We also acknowledge the need to inspect the surface of the pads periodically and to take measures to ensure that significant (non-surficial) gaps or cracks are repaired so that liquids cannot leak through the concrete and into the underlying soil.

Phillips 66 believes that the "cracks and gouges" that were observed by EPA during the inspection were surficial in nature and were not large or deep enough to allow wastes to be released to the soil beneath the pad. Nevertheless, since receipt of the Notice of Violation, we have obtained an estimate to make surface repairs to the heat exchanger bundle cleaning pad at the Wilmington Plant and will complete this work when weather permits. The debris that was located outside the secondary containment area was cleaned up following the inspection and care is taken to conduct operations on the pad in a manner that does not result in the release of waste outside the pad.

Phillips 66 does not agree, however, with EPA's assertion that the presence of liquid and debris in the pad sump constitutes a violation of hazardous waste regulations. The oily residues that collect in the sump are excluded oil-bearing materials and are not subject to regulation as hazardous wastes. To reiterate, Phillips 66 considers the sump (if not the entire maintenance pad) to be "part of a system used for the recovery of oil from oil-bearing materials, and the associated storage of oil-bearing materials and recovered oil." See Health & Saf. Code, § 25144(c). As such, there is no requirement to empty the sump of all liquid and solid material on a daily basis. Solids are typically removed at the end of a job, or as needed to maintain the effective operation of the sump as a settling basin. We acknowledge the need for the sump to provide effective containment, and are confident that it is free of cracks or gaps that might allow materials to escape (no such cracks or gaps are mentioned in the Inspection Report).

#### **Alleged Violation No. 7: EPA's Findings/Supporting Notes**

**[22 CCR § 66265.253(a)(4); 40 CFR § 265.253(a)(4)]**

- EPA inspectors observed liquid and debris inside the sump for the heat exchanger bundle cleaning pad. The sump is not connected to any sewer system and material must be pumped out by the facility.
- **Facility did not have records indicating when the sump for the pad was emptied.**



**Phillips 66 Response:** Please see our response to Alleged Violation No. 6. The sump, which is a catch basin that functions as a settling basin, is connected via hard piping to the ORU. Oily water from the catch basin is piped to the Oil Recovery Unit. The solids that collect in the catch basin are removed after each use of the bundle cleaning pad and managed as a hazardous waste. The only regulatory limitation on the length of time the solids may remain in the sump is contained in Health and Safety Code section 25144(c)(4), which prohibits speculative accumulation of oil-bearing materials.

Further, we do not understand EPA's citation to Section 66265.253(a)(4), which establishes containment requirements for run-on and run-off control systems associated with waste piles. The presence of liquid and debris inside the sump of the heat exchanger bundle cleaning pad is not tantamount to a waste pile, and the cleaning pad is not used to manage waste piles. Even if the regulation were applicable in the circumstances, it requires that collection and holding facilities must be emptied or otherwise managed expeditiously to maintain design capacity of the system. No specific time frame for this activity is mentioned, and it is left to the sound discretion of the operator, subject at most to the 90-day limit on accumulation of waste by generators. Phillips 66 maintains that the sump was in no danger of overflow and, in any event, the materials discharged into the sump are excluded oil-bearing materials. The solids that are produced from the separation of oil/water/solids are considered generated (and subject to regulation) when they are removed from the sump.

#### CARSON PLANT

#### **Alleged Violation No. 1: EPA's Findings/Supporting Notes**

##### **Finding 1:**

**LARC stored and disposed of hazardous wastes at two heat exchanger bundle (HEB) cleaning pads without a RCRA permit [22 CCR § 66270.1(c); 40 CFR § 270.1(c)]**

- LARC utilizes two pads (primary and temporary) to clean heat exchanger bundles. LARC's 4/7/2016 Response states that "Carson has a consolidated TSDF refinery sludge profile with RCRA codes F037, K050 and K051." The 4/7/2016 Response also explains that liquids generated from the cleaning activities are transported via vacuum truck to the ORU and the solids are hand shoveled into 55-gallon drums for offsite disposal as K050 hazardous waste.
- LARC provided manifests from 2012 to 2015 for K050, K051 and F037 wastes which would have been placed on the surface of the HEB Pads before being sent off-site for treatment and disposal. The secondary materials (K050 solids) that do not get sent to the ORU are shipped off-site for disposal as a hazardous waste and are not inserted back into the petroleum refinery process.
- In addition, EPA inspectors observed waste piles placed on the surface of the Permanent HEB Cleaning Pad on 8/24/2015. LARC's 4/7/2016 Response claims that these wastes were disposed as spent blasting grit (California Waste Code 181). The 4/7/2016 Response adds that the wastes were generated from sandblasting the interior of Tank 42, which had been out of service since 2008. If Tank 42 held petroleum products, the wastes should have been classified as F037.
- Inspectors observed wastes adhered to the walls and within the trenches and of the Primary HEB Cleaning Pad. LARC's 4/7/2016 Response explained that contractors clean the pads after each use, but there are no written procedures for cleaning the HEB cleaning pads. LARC personnel and contractors are required to follow the "Los



Angeles Refinery Policies & Procedures Manual,” dated December 2012, but this manual does not list any procedures for cleaning the HEB cleaning pads.

Phillips 66 Response: Please refer to the discussion of heat exchanger bundle cleaning pads provided in response to Alleged Violation No. 6 above, regarding the Wilmington Plant. Phillips 66 does not agree with EPA's allegation that it is storing, treating, disposing, or transferring hazardous waste at the two HEB cleaning pads used the Carson Plant. These maintenance pads are primarily used to clean heat exchanger bundles, typically for inspection. A secondary use of the pads is to prepare equipment that is slated to be scrapped. The HEB cleaning pads are also occasionally used to rinse out vacuum trucks of residual oily material so that the hydrocarbons may be recovered and recycled.

These pads serve as points of generation for excluded oil-bearing materials. Almost without exception, the activity that occurs on the HEB pads involves oily residues. The pads are designed and operated to capture the oily materials for ultimate routing to the Carson Plant's Oil Recovery Unit ("ORU"). They serve a vital function in the refinery in minimizing the amount of hazardous waste generated and maximizing beneficial recycling and recovery of petroleum hydrocarbons. The pads are also sometimes used to stage nonhazardous waste prior to off-site disposal. On rare occasion, other materials may be handled at the pads.

Materials generated on the primary HEB cleaning pad drain to a sump adjacent to the pad. The sump is hard-piped to a CPI box (a type of oil/water separator) that is hard-piped to the ORU. The sump is engineered to have independent structural integrity and is in good condition, without any known breaches in the containment. Residual solids are removed on a regular basis, though the amount of time between cleanouts varies depending on operating conditions. At no time do any residual solids remain in the sump for longer than 90 days.

Materials generated on what is referred to as the "temporary" HEB cleaning pad drain to a sump that is of similar construction as the sump on the primary HEB cleaning pad (*i.e.*, it has independent structural integrity and is in good condition). That sump has a drain line that is used for connecting to a vacuum truck for transporting materials collected in the sump. Alternatively, the sump can be plumbed to a frac tank that is used to collect the materials generated during the maintenance operation. At no time do any residual solids remain in the sump for longer than 90 days.

The refinery is in the process of developing written operating procedures for HEB pads to ensure that best management practices are followed. These procedures will require residual solids to be removed from the sump each day, whenever feasible. The procedures will also result in improved housekeeping at the HEB cleaning pads, by including a daily checklist to ensure that the pads remain clean and debris-free at the end of each day that the pads are used. A copy of the daily checklist is attached to this letter as Exhibit A. Phillips 66 is also in the process of coating the HEB cleaning pads to ensure any cracks or other surface defects are repaired. All cracks and seams on the temporary pad were sealed shortly after the inspection, prior to the refinery turnaround that occurred in October 2015. An epoxy coating was also applied to fill cracks and seams at the primary HEB cleaning pad, and the entire concrete floor of the pad will be coated with epoxy when weather permits. Finally, refinery personnel are evaluating possible engineering enhancements to improve the structural function and integrity of the secondary containment surrounding the pads.

As noted above, the use of the HEB cleaning pads is primarily restricted to handling oil-bearing materials and nonhazardous wastes. On a very small number of occasions, other materials may be handled at the pads, but the new operating checklist and procedures will require that supervisor approval be obtained for such use. An example of this type of “one-



off" use was observed during the EPA inspection. Specifically, the interior of Tank 42 (which had previously been emptied and cleaned) was sandblasted to prepare the tank for return to service. At the completion of the job, the sandblast grit (a nonRCRA hazardous waste) was removed by vacuum truck and taken to one of the pads, where it was offloaded so it could be shoveled into containers for off-site disposal. After the sandblast grit was placed in the containers, the pad was washed down and a small amount of residue may have been washed into the sump. The plant's improved housekeeping procedures are expected to eliminate these types of occurrences by requiring that all hazardous non-oily residues be swept up rather than washed into the sump. The procedures will also require that wattles or other protective devices be placed around the sump to prevent material from inadvertently entering the sump.

As a final point, the sandblast grit was not required to be identified as F037, even if the tank contained hydrocarbons at some point in the past. The tank was empty at the time it was cleaned, and the scale and other debris resulting from the sandblasting do not fall within the scope of the F037 listing, which encompasses petroleum refinery primary oil/water/solids separation sludge.

## Finding 2

### **LARC treated and disposed of selenium waste without a RCRA permit [22 CCR § 66270.1(c); 40 CFR § 270.1(c)]**

- Inspectors noted a stream of liquid leaking from the Selenium Removal Unit V-2370A. EPA analysis of the liquid showed hazardous levels of selenium (2.6 mg/L). Inspectors observed that the hazardous liquid waste had bypassed the secondary containment berm surrounding the Unit through an open valve and had discharged into a process water drain, which would lead to the ORU and eventually to the POTW. The ORU is not designed to remove selenium.

Phillips 66 Response: The stream of liquid observed leaking from the Selenium Removal Unit ("SRU") at the time of the inspection resulted from unit maintenance during turnaround activities (*i.e.*, the leaking does not occur during regular operation of the unit). The reactor had been emptied and flushed repeatedly during the turnaround, and the unit was being allowed to drain after the bulk of the water had been removed by vacuum truck. Based on their experience with prior, similar maintenance activities, refinery personnel had concluded that the only liquid remaining in the reactor was clean water. Upon testing, it was determined that the liquid contained enough selenium to barely exceed the TCLP.

As noted by EPA, the leaking water flowed out of the secondary containment area through an open valve and entered the process water drain, which leads to the refinery's wastewater treatment system/ORU.<sup>2</sup> Water entering the drain thus commingled with other refinery process wastewater and was immediately diluted. Phillips 66 acknowledges that the ORU is not designed to remove selenium. Nevertheless, the Carson Plant discharges to a POTW under an Industrial Discharge Permit, issued pursuant to Section 307(b) of the Clean Water Act, that contains a mass limit for selenium. Effluent sampling confirmed that the discharge to the POTW (POTW influent) did not exceed the selenium mass limit.

In addition, under federal hazardous waste regulations, even if the discharge of water from the SRU were considered by itself, without regard to the larger volume of wastewater in the

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<sup>2</sup> Please note that the annotation on IMG\_0006 states that the water discharged into a storm drain. The drain in question collected stormwater runoff from process areas during rain events, but it is connected with the refinery's process sewer and flows to the ORU.



system, discharges into POTWs that are regulated pursuant to Industrial Discharge Permits issued under Section 307(b) of the Clean Water Act -- as is the case here -- are not subject to regulation under RCRA. See 40 CFR § 261.4(a)(1). Further, under federal regulations, centralized wastewater treatment systems such as the ORU at the Carson Plant -- that are purposefully designed and engineered to collect compatible wastewaters from numerous sources or areas within an industrial facility -- are exempt from the requirement to obtain a hazardous waste permit. See 40 CFR § 265.1(c)(10). Management of hazardous wastewater in federally exempt wastewater treatment systems does not constitute the unpermitted treatment or disposal of hazardous waste under RCRA. While California's authorized hazardous waste program does not contain the same broad exemption for wastewater treatment units as exists under the federal program, EPA's enforcement authority does not extend to aspects of the state program that are broader in scope than the federal program.

Thus, while we acknowledge that the discharge of drainage water from the Selenium Removal Unit to the process drain was inadvertent, we do not believe this event can fairly be considered unlawful (*i.e.*, unpermitted) treatment or disposal of hazardous waste. However, based on what was learned during this maintenance turnaround, refinery personnel are now instructed to remove any water that accumulates in the secondary containment area and to return the water to the process, where it is routed for retreatment.

## **Alleged Violation No. 2: EPA's Findings/Supporting Notes**

### **Finding 1**

**LARC failed to make a hazardous waste determination for selenium waste leaking from the selenium plant [22 CCR § 66262.11); 40 CFR § 262.11]**

- EPA's analysis of the liquid leaking from Selenium Removal Unit V-2370A showed hazardous levels of selenium (2.6 mg/L). At the time of the inspection, LARC personnel had not determined that the waste was hazardous. The liquid waste had bypassed the secondary containment berm and discharged into a process water drain.

Phillips 66 Response: Please see our response to Alleged Violation No. 1, Finding No. 2, above. Refinery personnel relied on generator knowledge and believed in good faith that the water draining from the unit was nonhazardous.

### **Finding 2**

**LARC failed to make a hazardous waste determination for sodium hypochlorite at the HWAA [22 CCR § 66262.11); 40 CFR § 262.11]**

- Inspectors observed crystalized waste sodium hypochlorite accumulated in a secondary containment structure at the LARC HWAA. LARC provided a Safety Data Sheet for the sodium hypochlorite stored in the tank (see Appendix 2), which indicates that the material has a pH of 12.5-13.5 s.u. @ 25 degrees Celsius. If the pH of the rinse water is equal to or greater than 12.5, the material is a RCRA Hazardous Waste D002, corrosive. The waste may be hazardous for pH, depending on the concentration of NaClO. LARC's 4/7/2016 Response stated that the tank was rinsed and the rinse water was sent to the refinery sewer system.

Phillips 66 Response: Refinery personnel use sodium hypochlorite (bleach) for water treatment at the ORU. Prior to the EPA inspection, Phillips 66 had replaced a sodium hypochlorite tank at the ORU and transferred the out-of-service tank to the HWAA. The secondary containment structure around the removed tank contained some solid (crystallized) sodium hypochlorite residue. Upon observation by the inspectors, the material was rinsed



into the refinery sewer system. Although the crystallized sodium hypochlorite may have had a pH of 12.5 or more, the federal corrosivity characteristic applies only to aqueous materials, not solids. Based on generator knowledge, we are confident that the rinseate into the refinery sewer system was well below 12.5 pH. Further, because sodium hypochlorite is used directly in the ORU for sulfide control, the addition of the residue in question is a legitimate form of on-site recycling.

### **Alleged Violation No. 3: EPA's Findings/Supporting Notes**

#### **Finding 1**

**LARC failed to manage the release of hazardous waste at the Selenium Plant [22 CCR § 66265.31; 40 CFR § 265.31]**

- LARC personnel failed to properly manage a leak from vessel V-2370A at the Selenium Removal Unit. Analysis of the discharged liquid showed hazardous levels of selenium (2.6 mg/L). The hazardous waste liquid was observed discharging through secondary containment into a process storm drain.

Phillips 66 Response: Please see our response to Alleged Violation No. 1, Finding No. 2, above.

#### **Finding 2**

**LARC failed to manage the release of hazardous wastes at the HEB cleaning pad [22 CCR § 66265.31; 40 CFR § 265.31]**

- LARC personnel confirmed during the inspection and in their 4/7/2016 Response that cleaning activities occur on the surface of the Primary and Temporary HEB Cleaning Pads, which generate F037, K050 and K051 wastes.
- Wastes had accumulated on the walls and within the trenches of the Primary HEB Cleaning Pad. Gaps ranging from 1 to 10 inches were observed along the lower portion of the eastern wall of the primary HEB cleaning pad, allowing liquids and solids to discharge outside of the corrugated metal fence, as shown in IMG\_0050 and IMG\_0053. Inspectors noted cracks and gouges on the surface of the Permanent HEB Cleaning Pad, which can be seen in photographs IMG\_0043 and IMG\_0047.

Phillips 66 Response: Please see our response to Alleged Violation No. 1, Finding No. 1, above.

In addition, we disagree with EPA's assertion that wastes had accumulated on the walls of the Primary HEB Cleaning Pad. What was observed during the inspection was staining. We do not believe the presence of this staining constitutes a release of hazardous waste. Regardless, Refinery personnel have since removed as much of the staining as possible and painted the wall with a coating that prevents material from penetrating the cinderblock walls.

Without admitting that the presence of oily solids in the trenches constituted a violation of any regulation, refinery personnel cleaned up the materials in the trenches before the inspectors left the Carson Plant. As described above, we are in the process of developing new procedures and physical improvements for the HEB pads that will improve housekeeping going forward.



#### **Alleged Violation No. 4: EPA's Findings/Supporting Notes**

##### **Finding 1**

**LARC failed to close hazardous waste containers [22 CCR § 66262.34(a)(1)(A)); 40 CFR § 265.34(a)(1) and 22 CCR § 66265.173(a); 40 CFR § 265.173(a)]**

- At the LARC HWAA, inspectors noted one open 55-gallon container with a lid marked with the words “Sludge from FR 4, 5, 6 from Flasher.” The ring was not clamped shut to keep the lid on. LARC’s 4/7/2016 Response (Appendix 11) confirmed the container held heat exchanger bundle waste from the Vacuum Flasher Unit. The hazardous waste was manifested as F037, K050, K051 on 9/21/2015 on a manifest with tracking number 007080891 (included as Appendix 8).

Phillips 66 Response: Phillips 66 personnel closed the lid of the 55-gallon container at the time of inspection.

#### **Alleged Violation No. 5: EPA's Findings/Supporting Notes**

##### **Alleged Violation of DTSC’s Post-Closure Permit**

- Unit-specific special conditions of the Permit require the permittee to conduct quarterly inspections of the asphalt cover of the former Process Water Pond (PWP) and conduct repair and maintenance of the cover if needed.
- Portions of the PWP were covered with sediment that originated from an adjacent unstabilized earthen bank. The layer of sediment prevented the ability to adequately inspect the surface of the PWP.
- Cracks and gouges were noted on portions of the PWP that were not covered by sediment.
- Inspectors noted gouges and cracks on the asphalt surface of the cap covering the former Process Water Pond. LARC failed to identify and to make repairs to the cap to the closed Process Water Pond pad. Portions of the asphalt cap were covered with soil that had migrated from an adjacent unstabilized bank, which would prevent visual inspections of the cap.

Phillips 66 Response: The PWP is in a low spot of the Carson Plant and is bounded by earthen berms. Soil from the earthen berms has a tendency to slough off and fall onto the asphalt cover of the unit. Phillips 66 is developing a plan to stabilize the earthen berms to eliminate, or at least minimize, the potential for dirt to fall onto the cap. For example, following this wet weather season, the earthen berms surrounding the PWP will be stabilized with gunite (sprayed-on concrete).

In addition, refinery personnel will soon be putting a slurry seal over the top of the PWP asphalt cap, which will eliminate any cracks, gouges, or other surface defects the asphalt cap. This was originally scheduled to be complete in mid-March, but its completion has been delayed by 2 to 3 weeks because of wet weather this winter.

Lastly, Phillips 66 is required to perform quarterly, visual inspections of the PWP asphalt cap. Pursuant to refinery procedures, these visual inspections are actually performed twice each day. Although it may be true that certain portions of the asphalt cap were obscured from the inspectors' view by the dirt that was on the cap during the period of the inspection, Phillips 66 has conducted and continues to conduct effective, required quarterly inspections of the cap and is not in violation of its Post-Closure Permit.

Thank you for your consideration of this response. It is our hope that we can reach a reasonable resolution of this matter, based on the information provided herein and in our prior responses.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael D. Bechtol', with a stylized, flowing script.

Michael D. Bechtol  
Environmental Manager

Enclosures



*Douglas K. McDaniel*  
*March 24, 2017*  
*Page 14*

Bcc: (via hardcopy w/enclosures)

Meg Rosegay (via U.S. Mail)  
Jimmy Greene